

OPTICAL MUX/DEMUX

FIG. 1

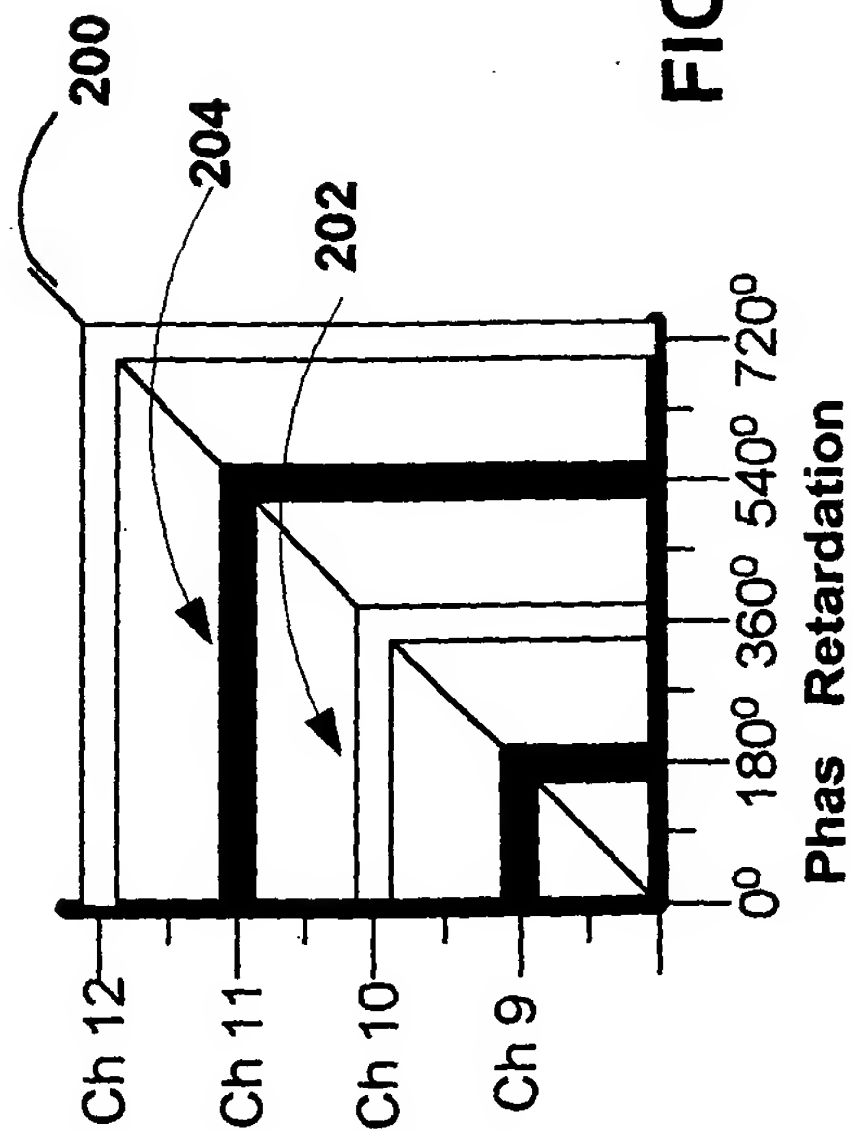


FIG. 2A

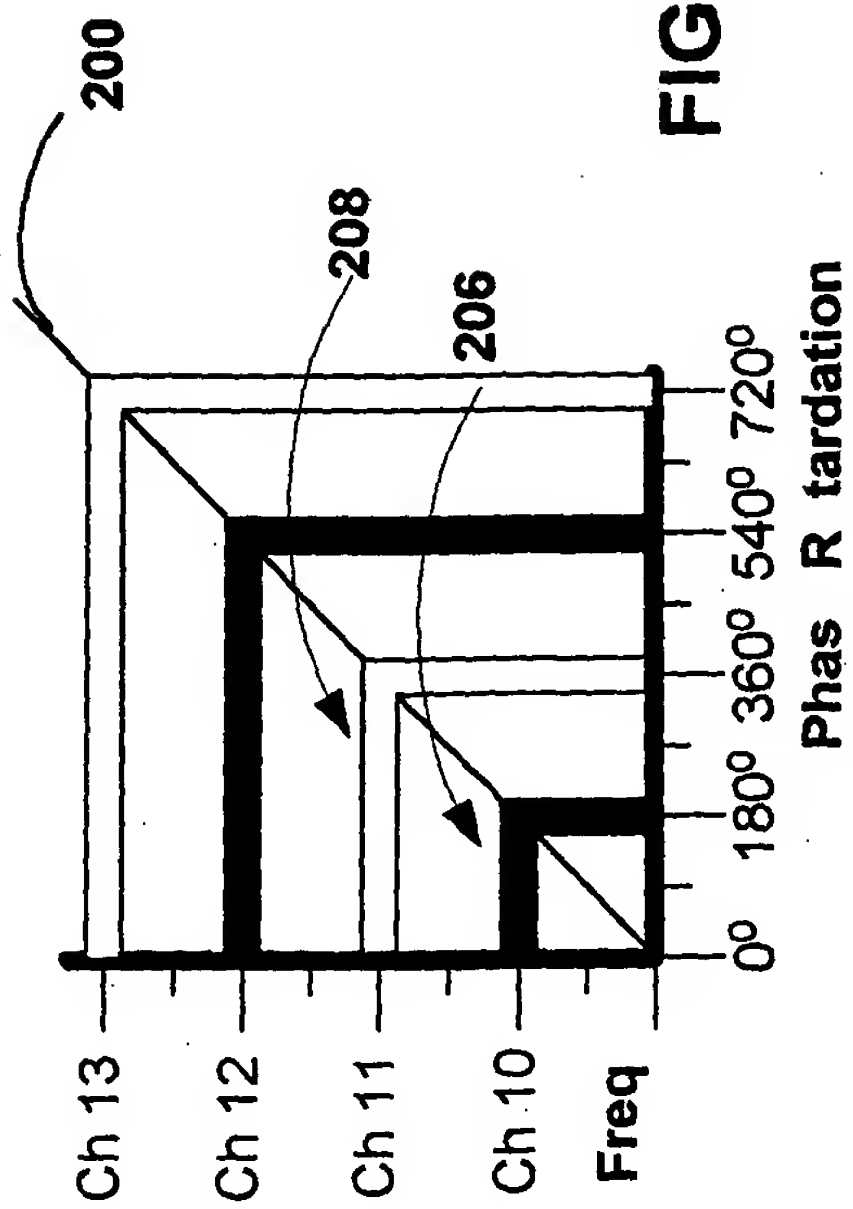


FIG. 2B

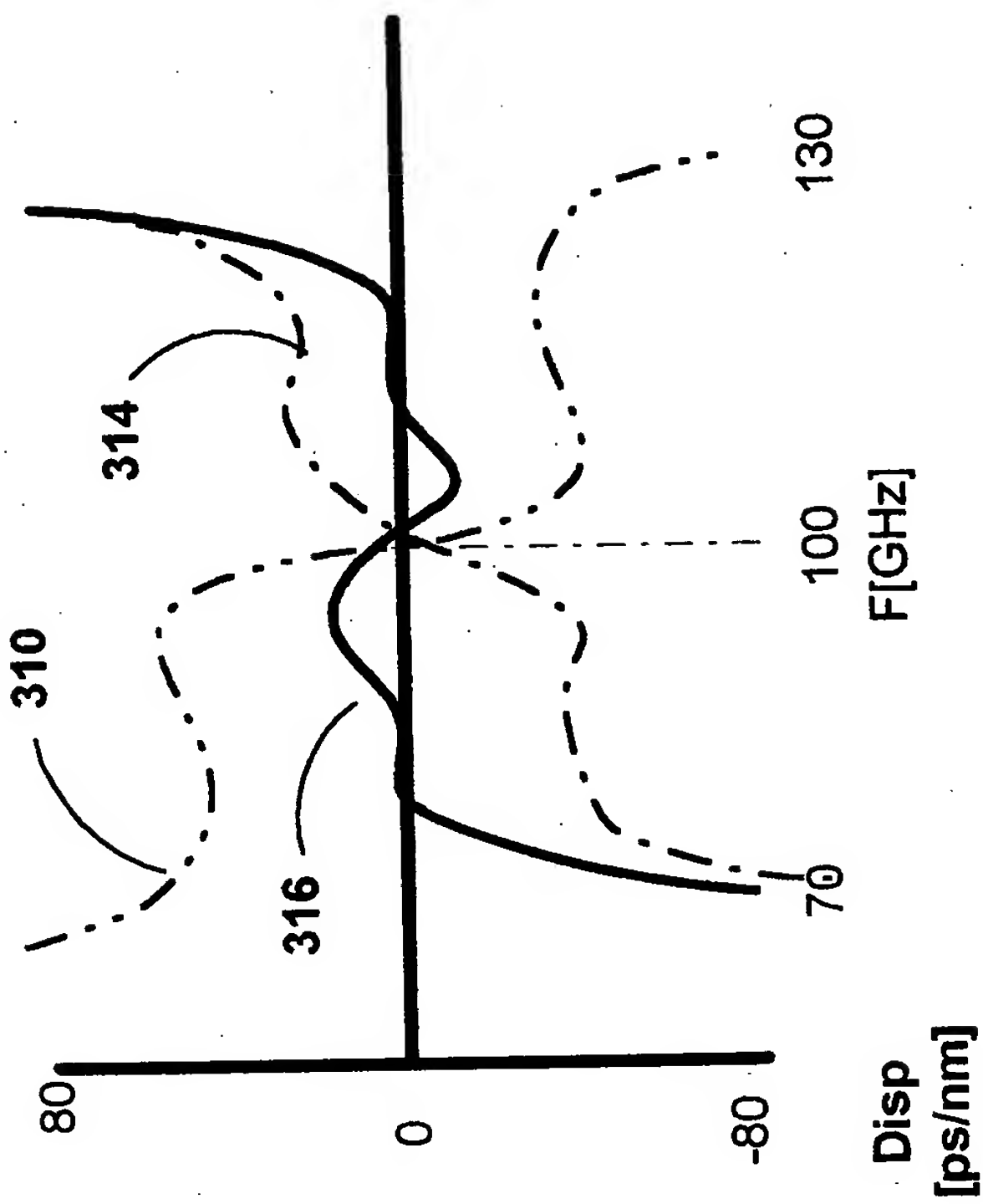


FIG. 3B

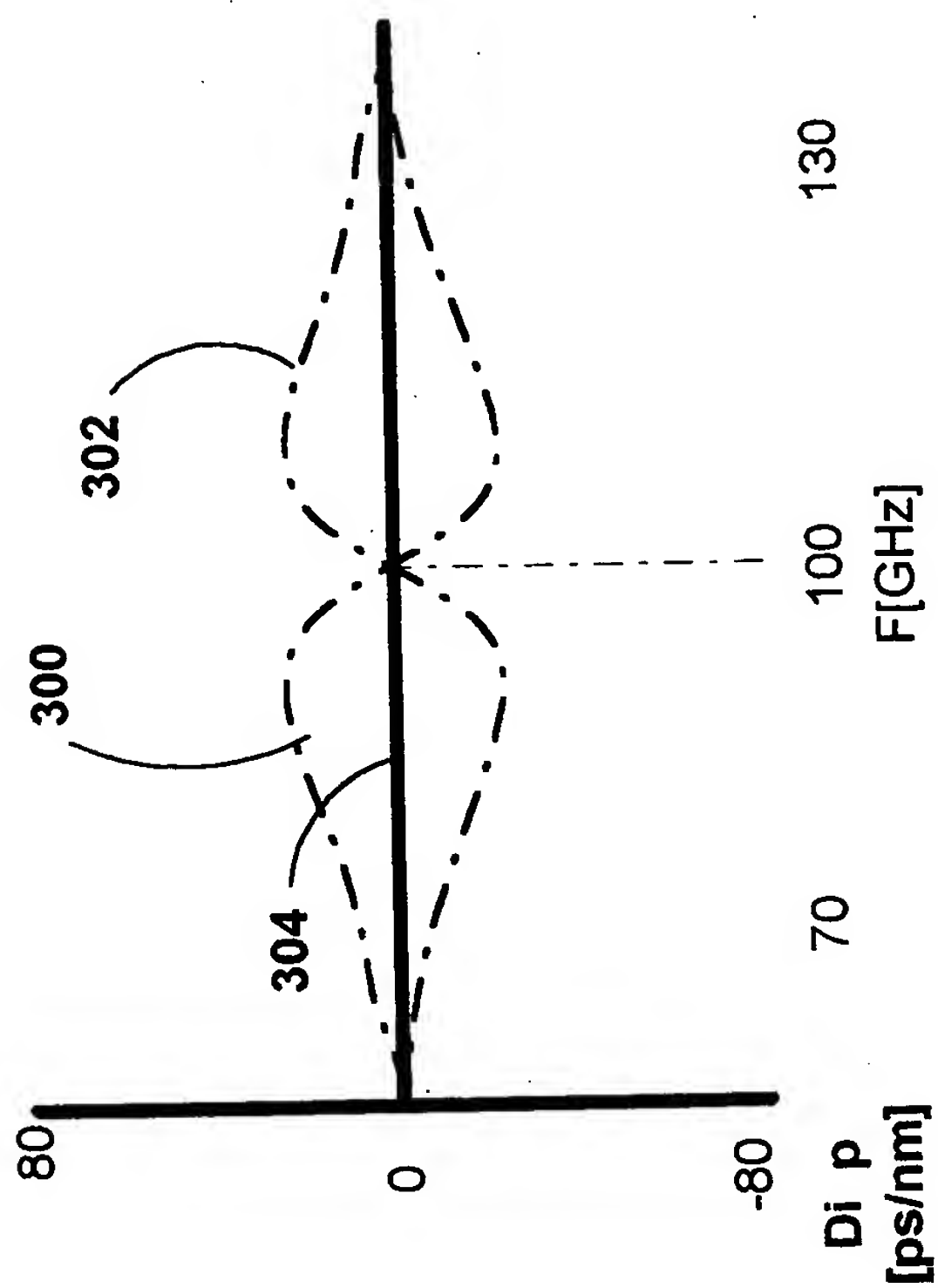


FIG. 3A

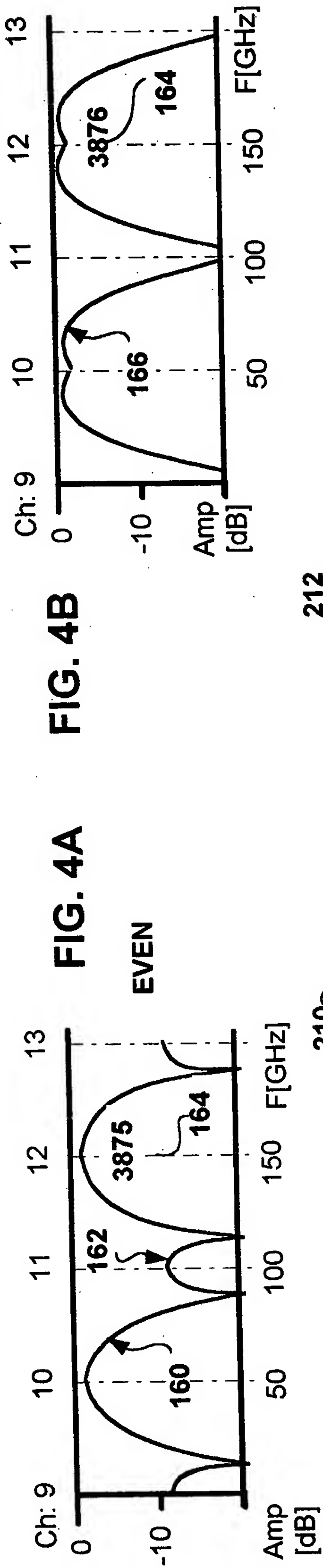


FIG. 4A

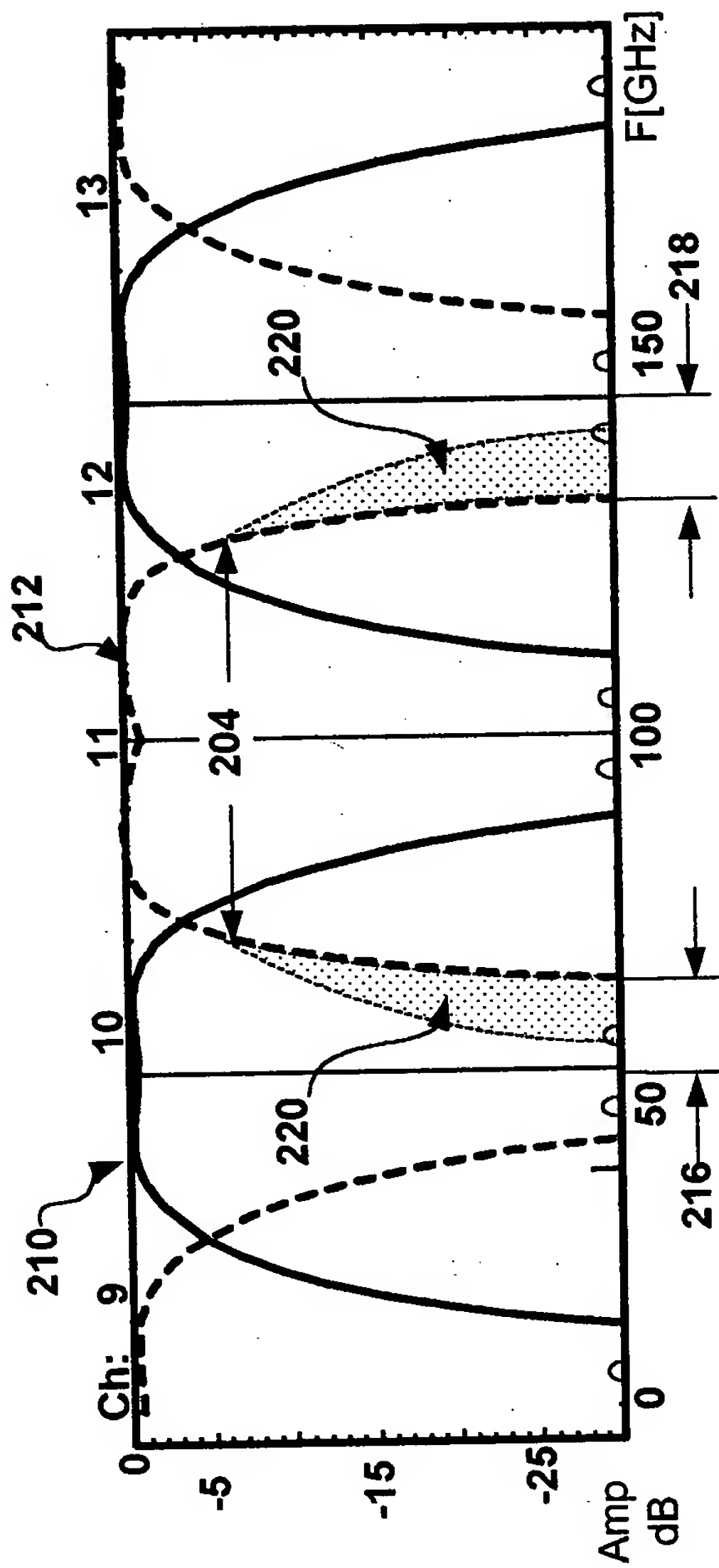


FIG. 4E

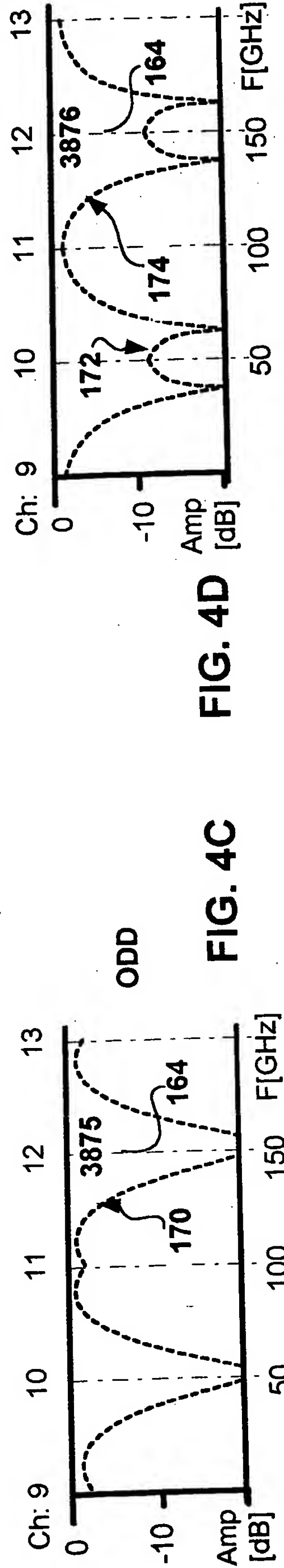


FIG. 4C

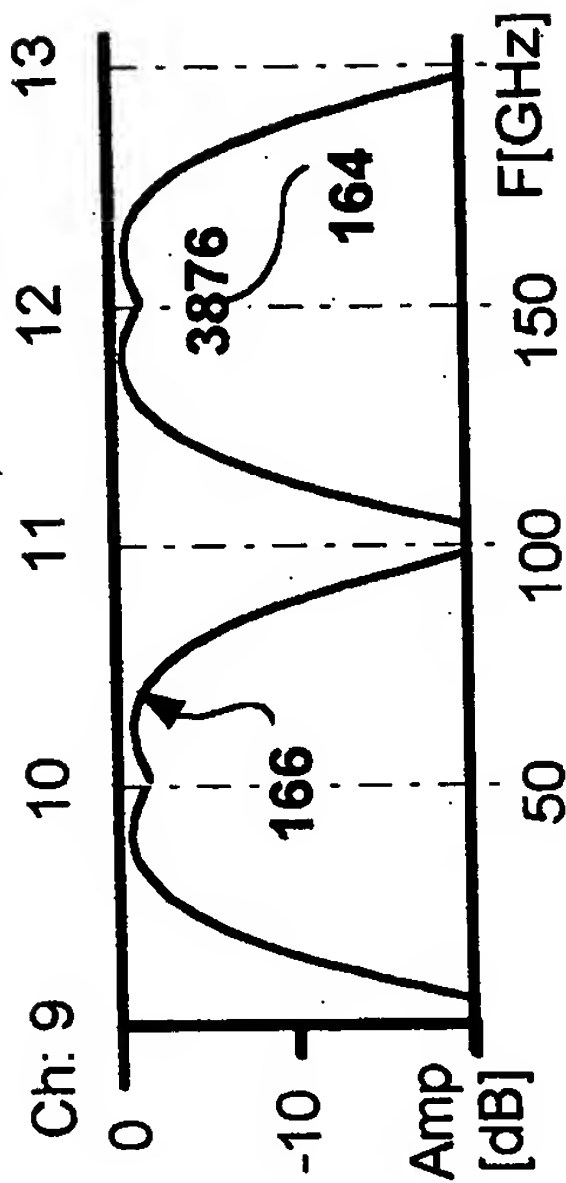


FIG. 4B

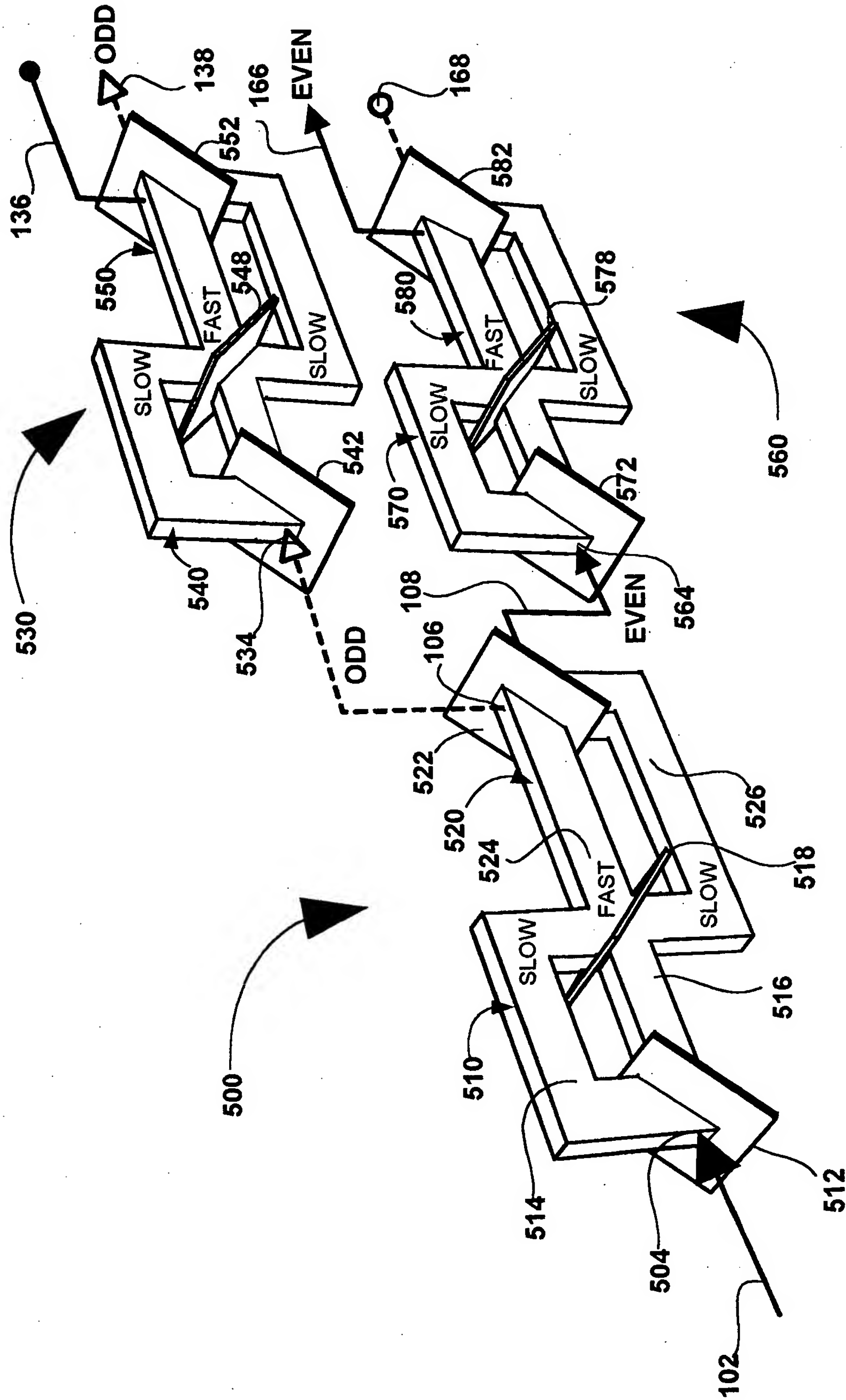


FIG. 5A

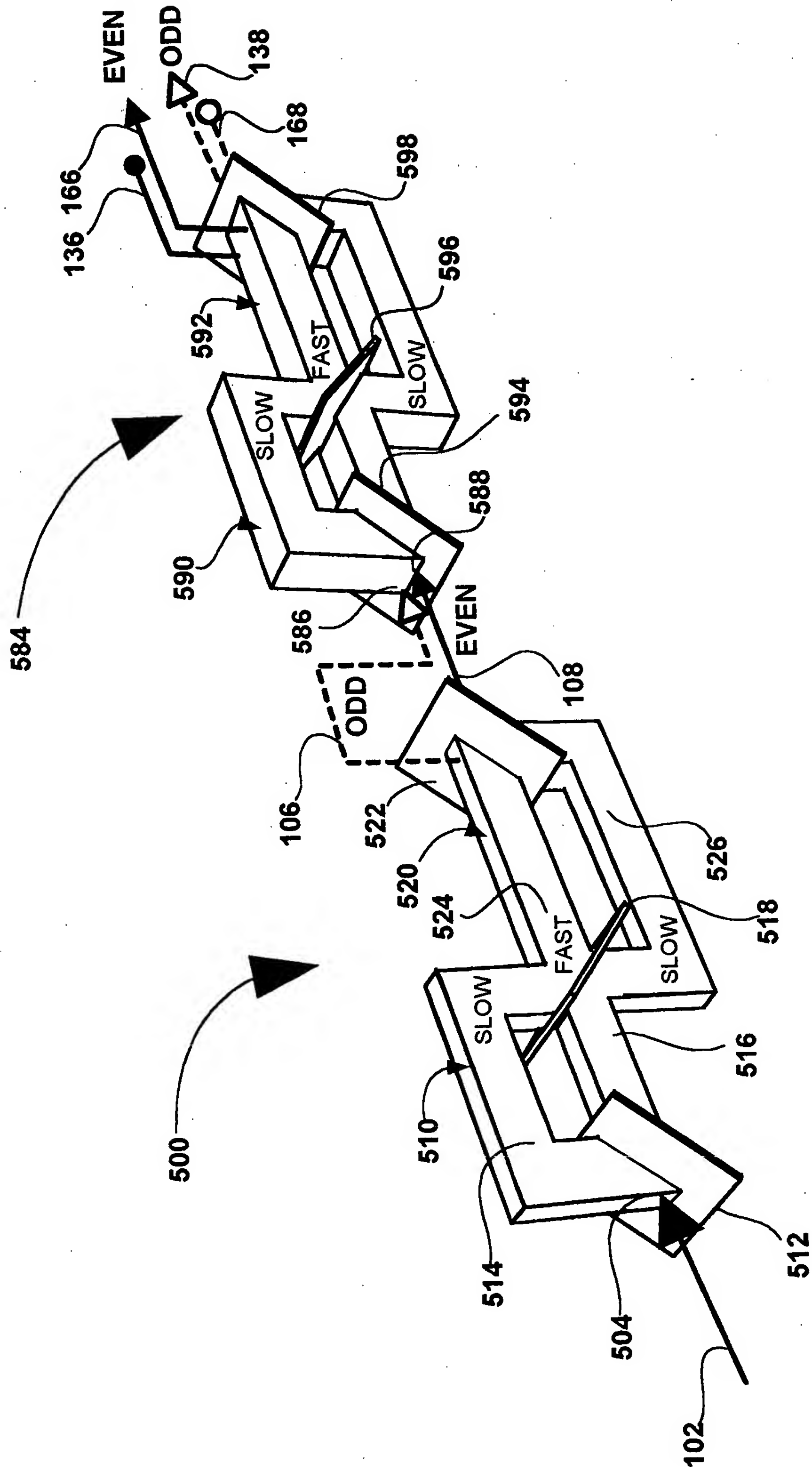


FIG. 5B

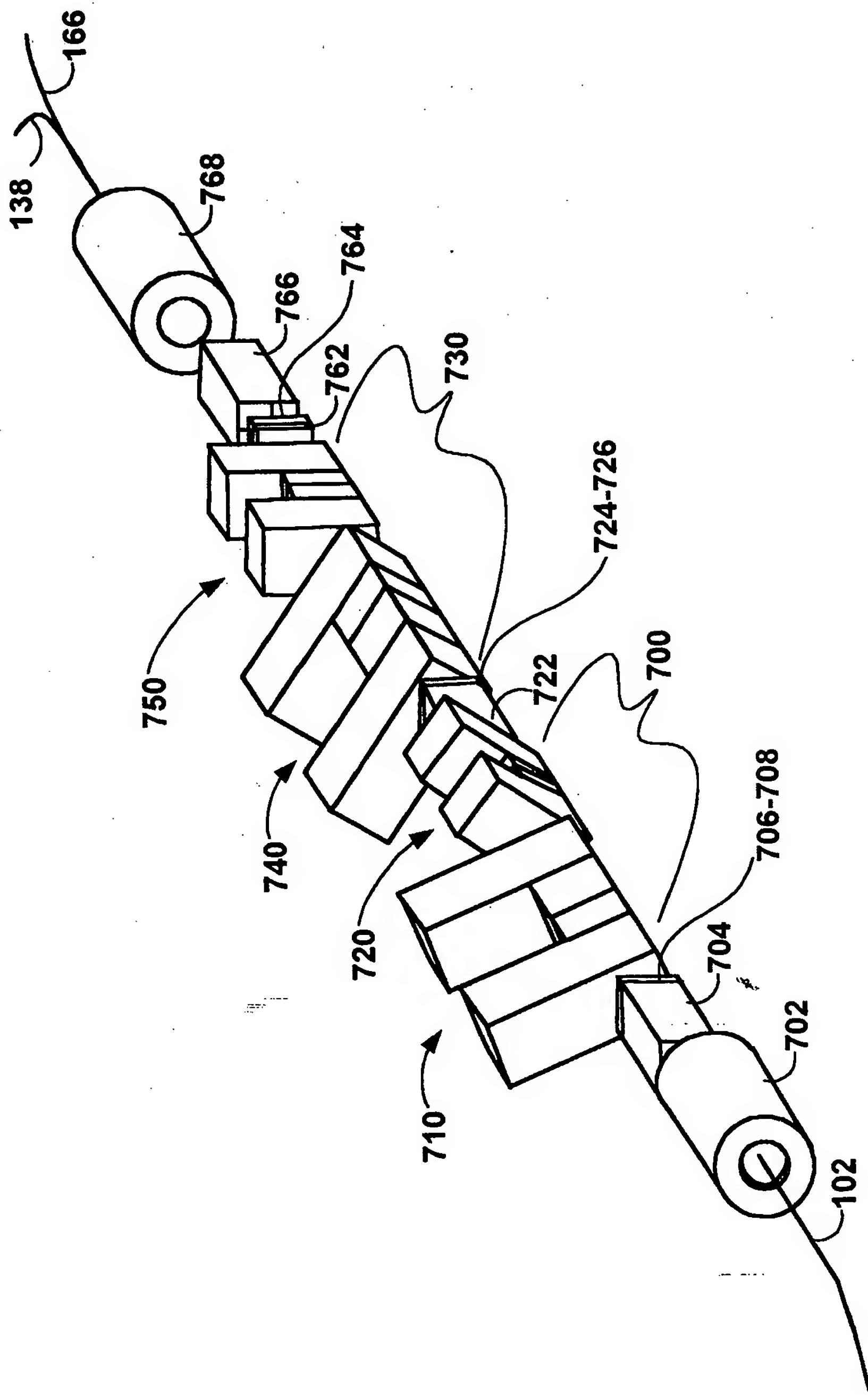


FIG. 7A

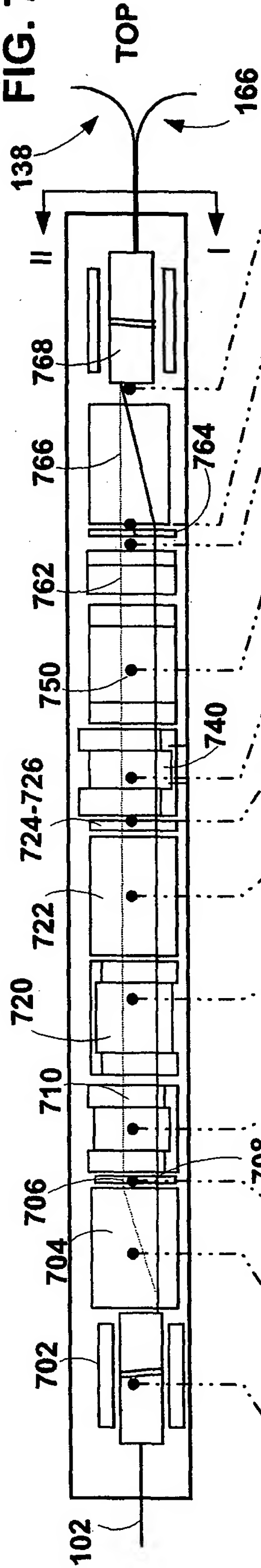


FIG. 7D

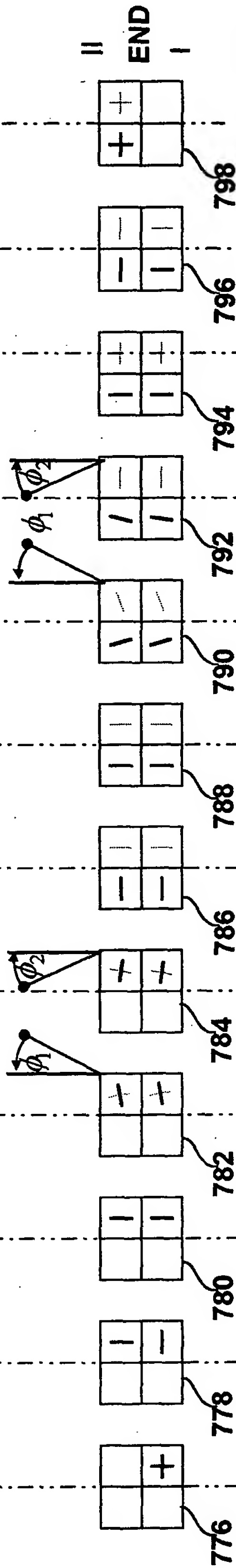
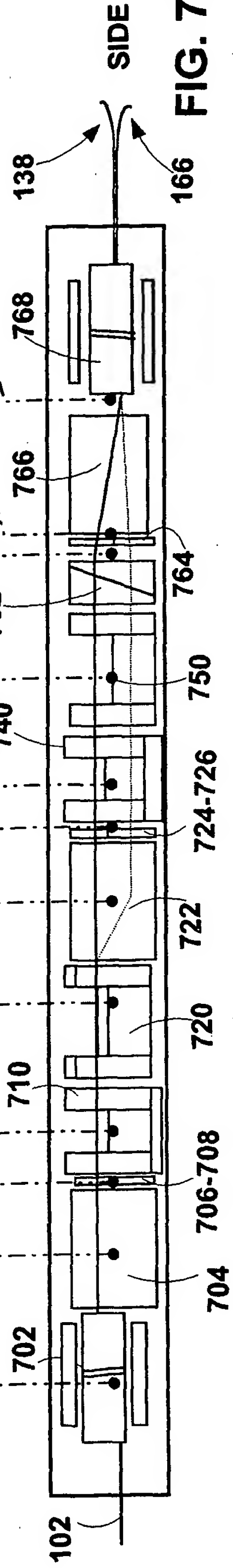


FIG. 7C



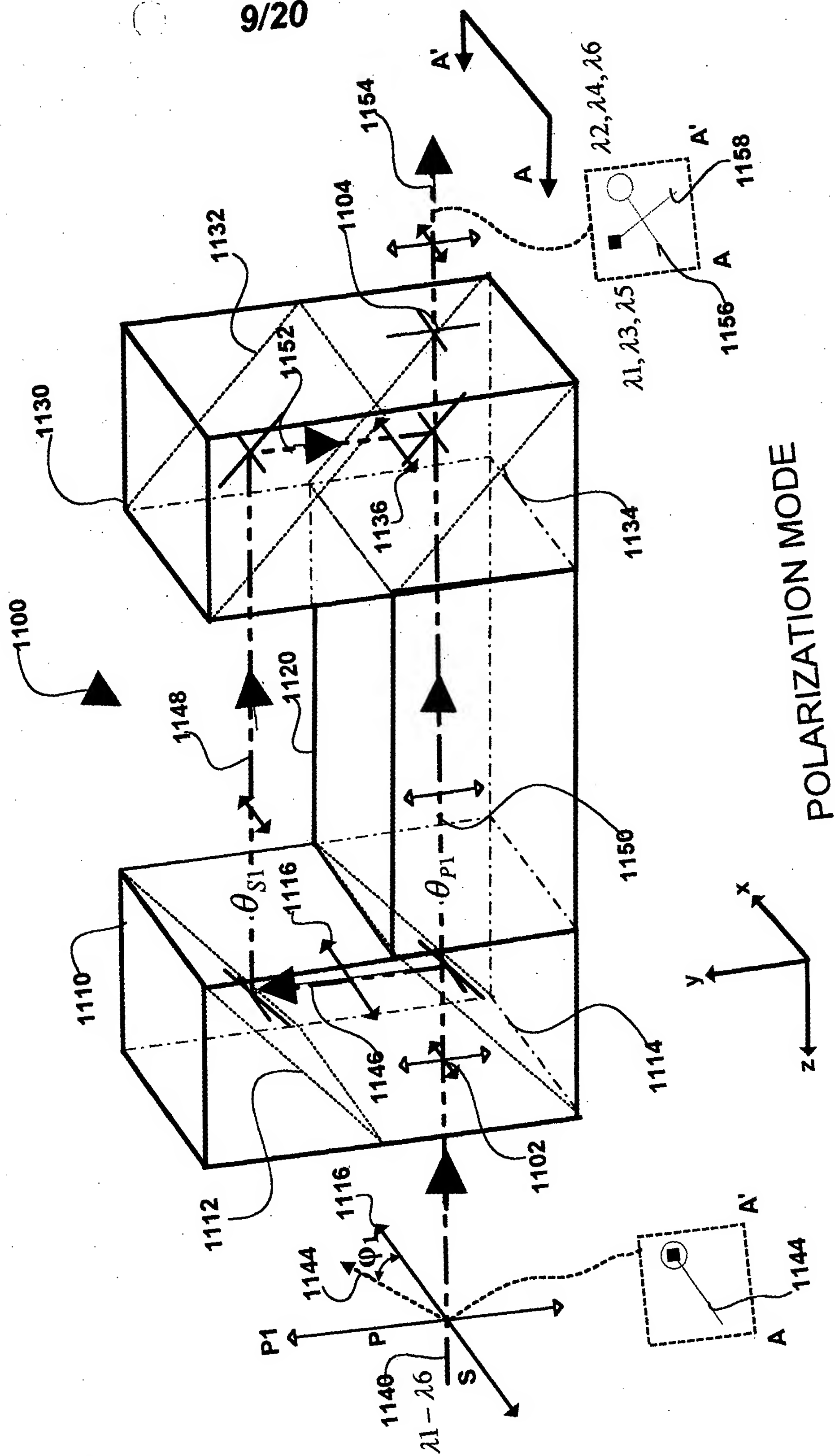


FIG. 8A

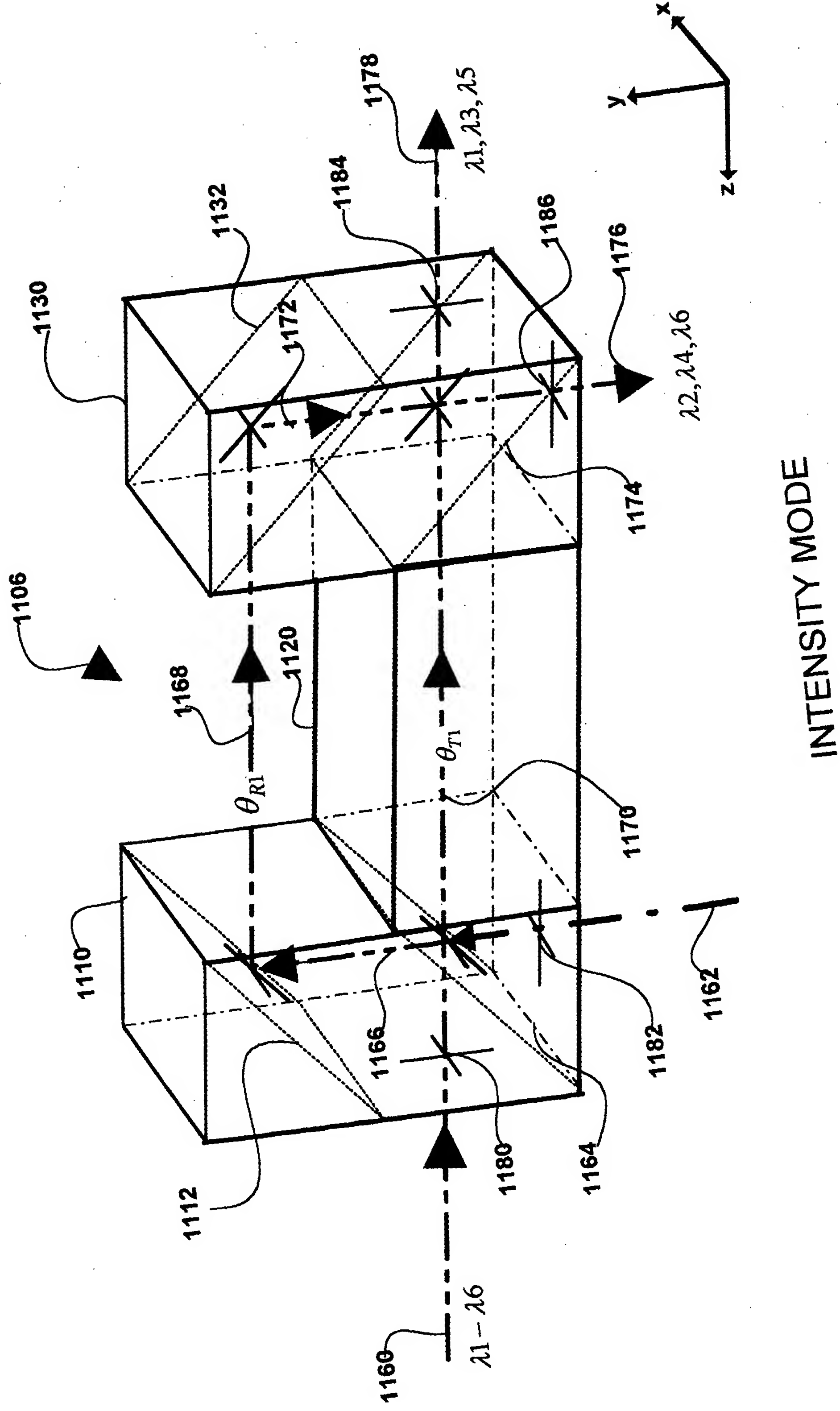
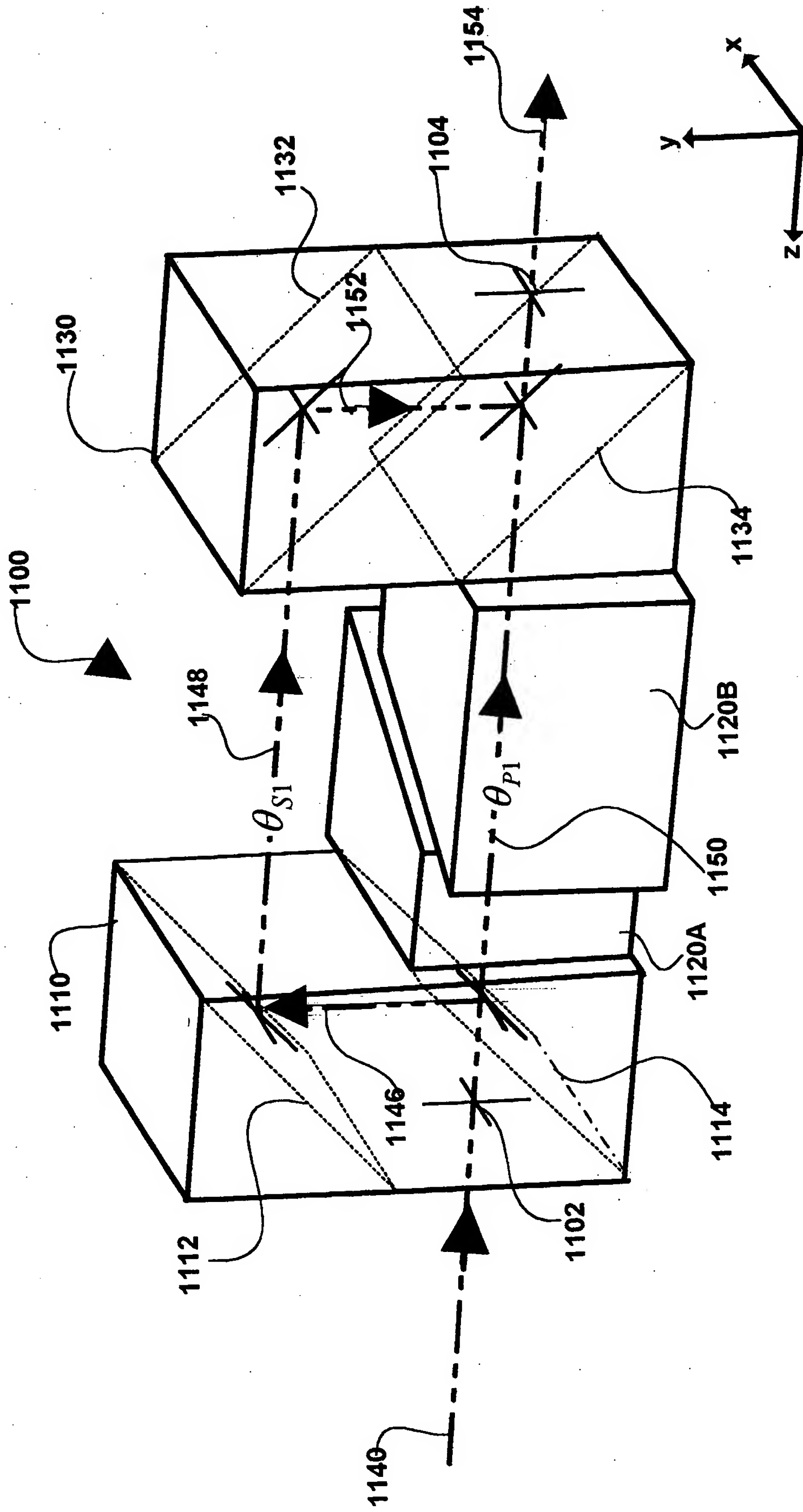
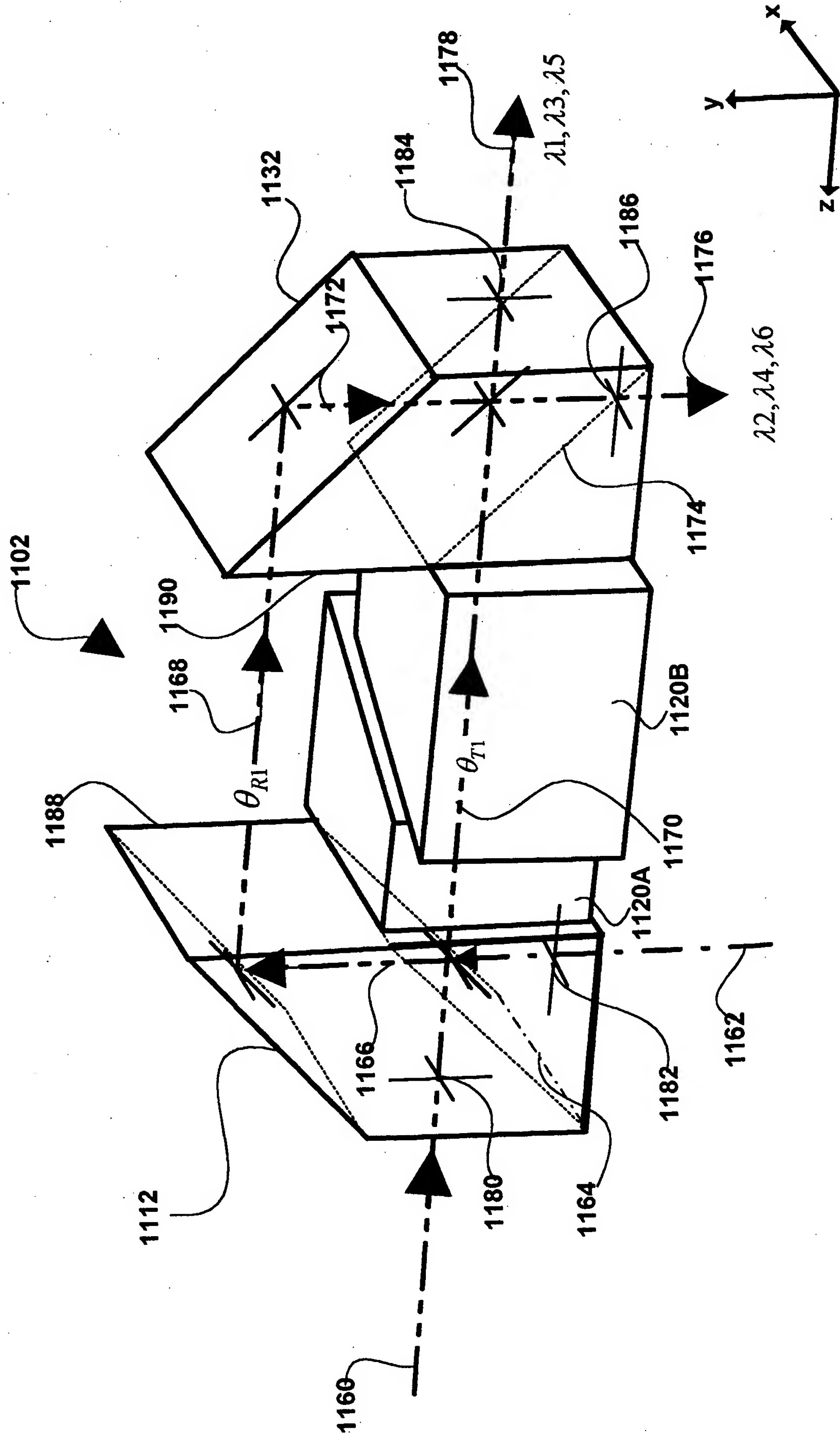


FIG. 8B



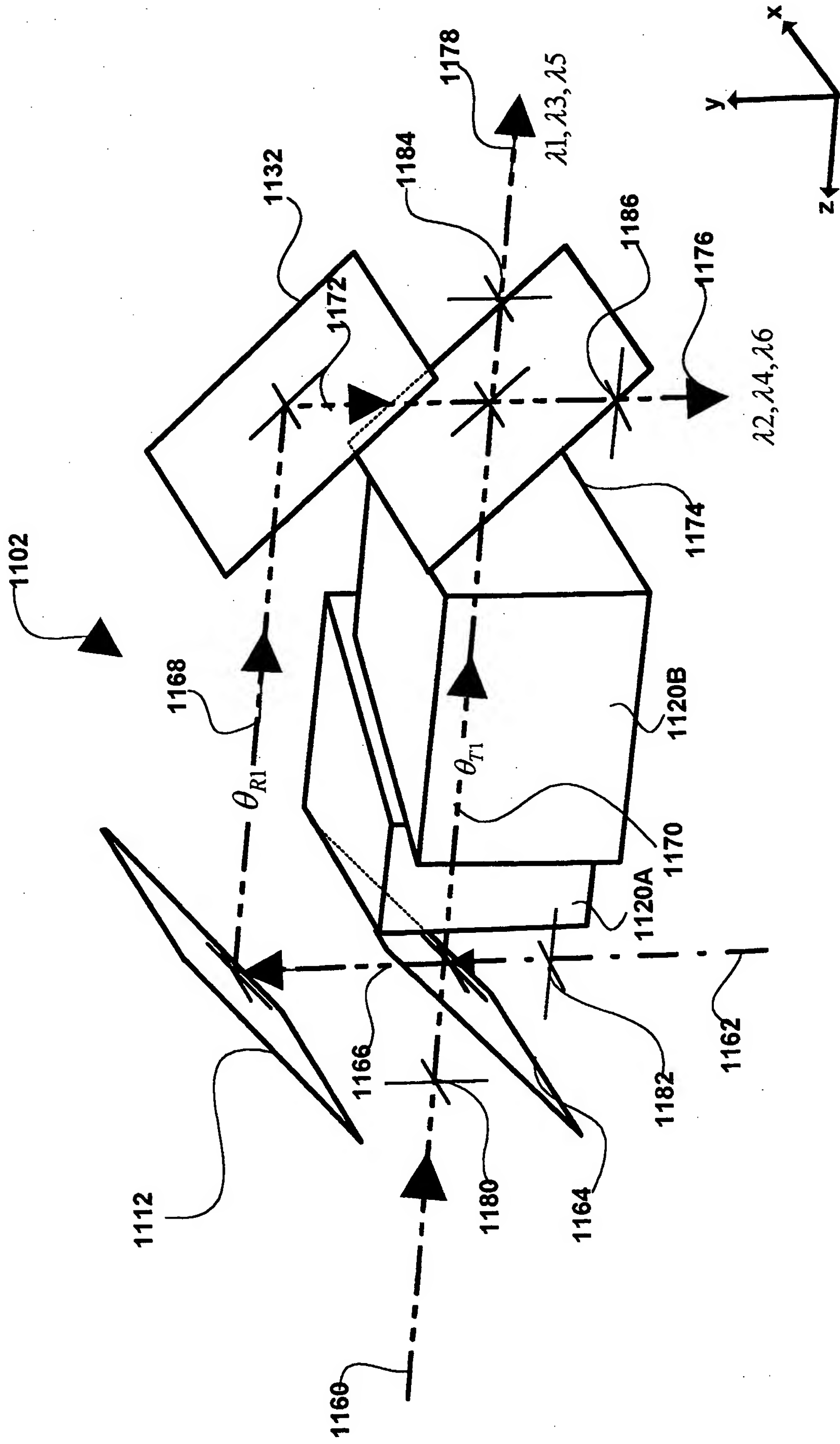
POLARIZATION MODE

FIG. 8C



INTENSITY MODE

FIG. 8D



INTENSITY MODE

FIG. 8E

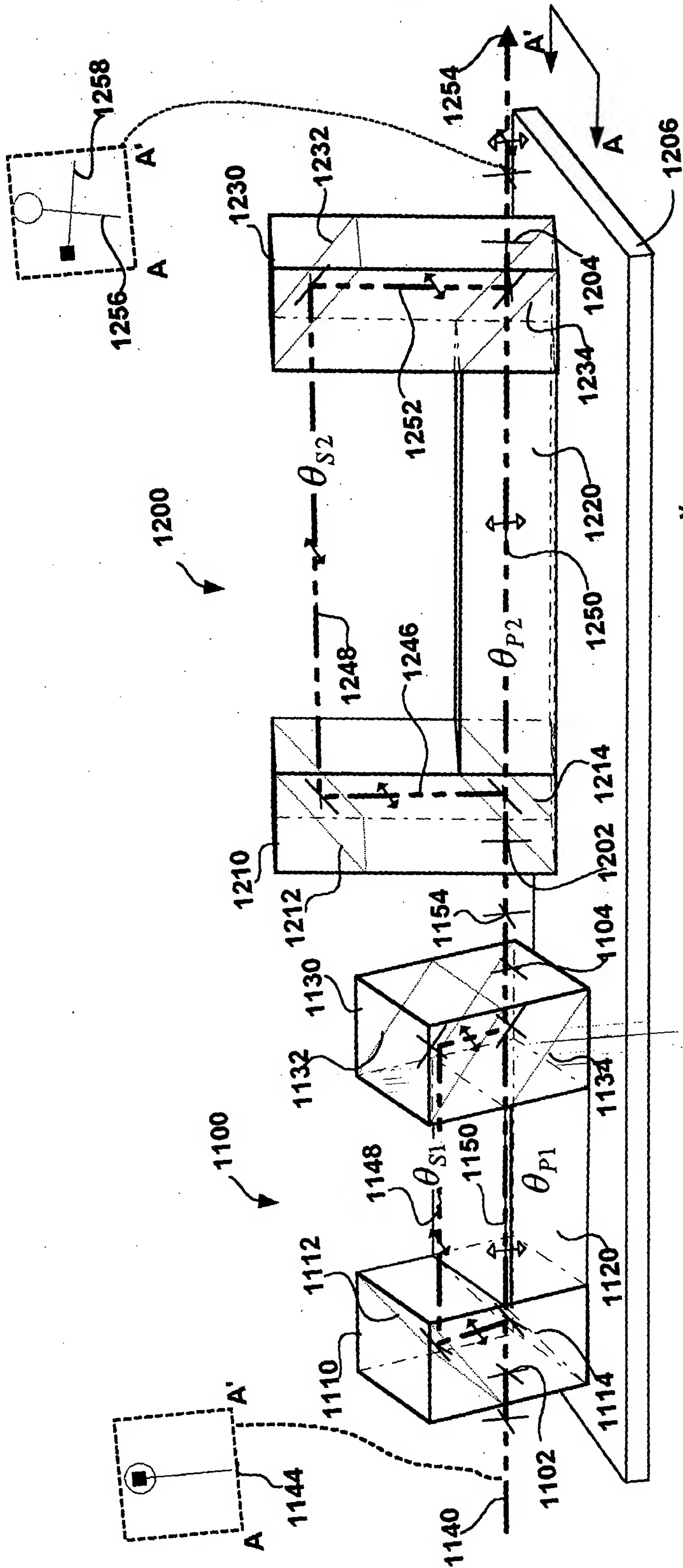


FIG. 9A

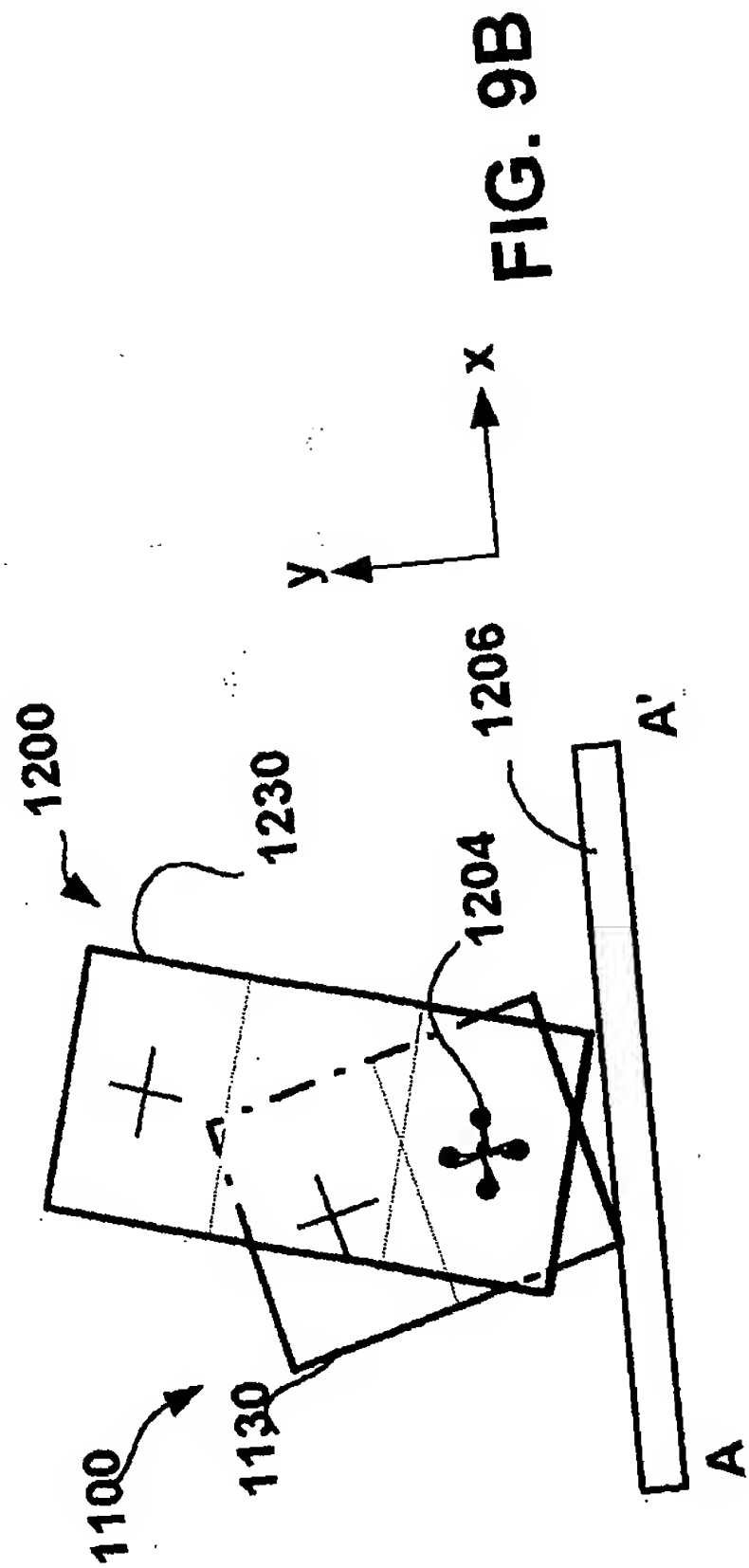


FIG. 9B

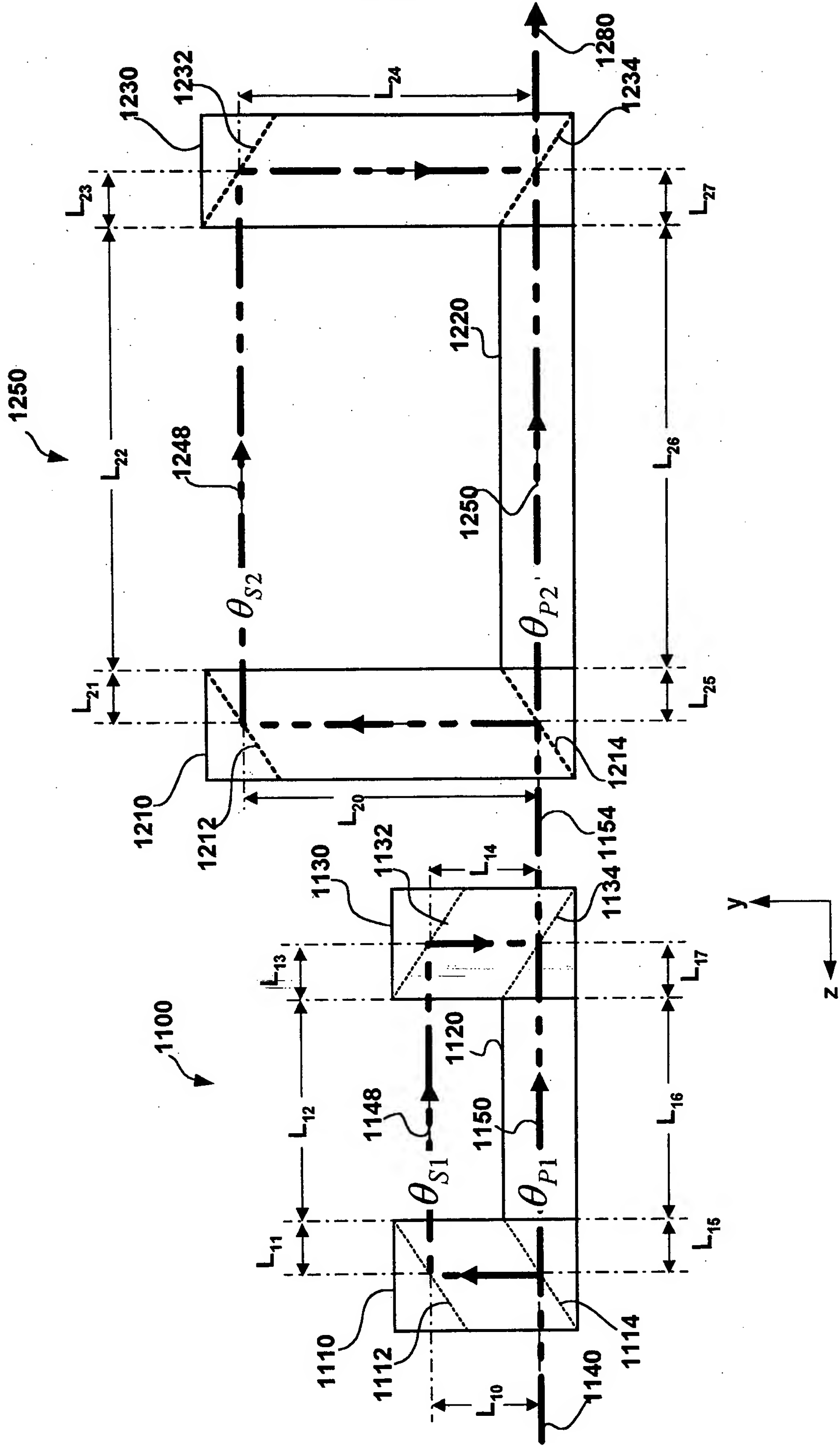
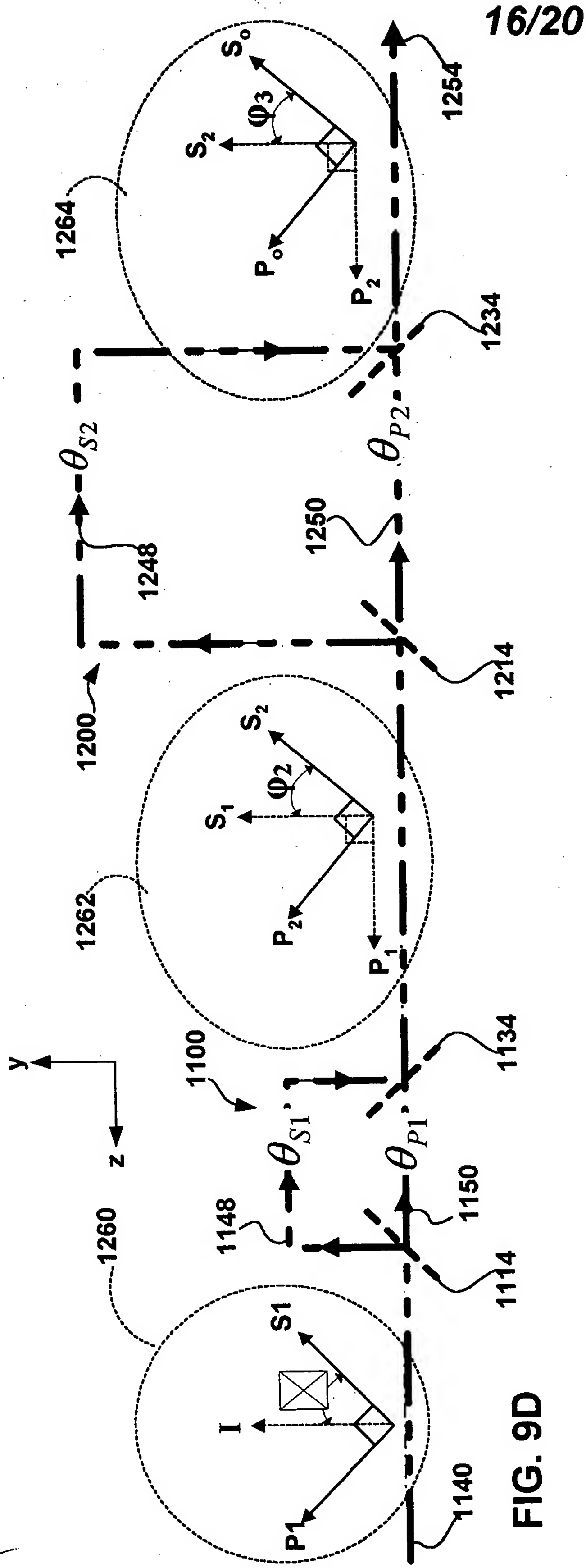


FIG. 9C



$$\begin{aligned}
 \text{Path 1} &= \cos \phi_1 \cdot \cos \phi_2 \cdot \cos \phi_3 \cdot e^{i(\theta_{S1} + \theta_{S2})} \\
 \text{Path 2} &= \cos \phi_1 \cdot \sin \phi_2 \cdot -\sin \phi_3 \cdot e^{i(\theta_{S1} + \theta_{P2})} \\
 \text{Path 3} &= \sin \phi_1 \cdot -\sin \phi_2 \cdot \cos \phi_3 \cdot e^{i(\theta_{P1} + \theta_{S2})} \\
 \text{Path 4} &= \sin \phi_1 \cdot \cos \phi_2 \cdot -\sin \phi_3 \cdot e^{i(\theta_{P1} + \theta_{P2})}
 \end{aligned}$$

1288

1290

1292

1294

1296

1298

FIG. 9E

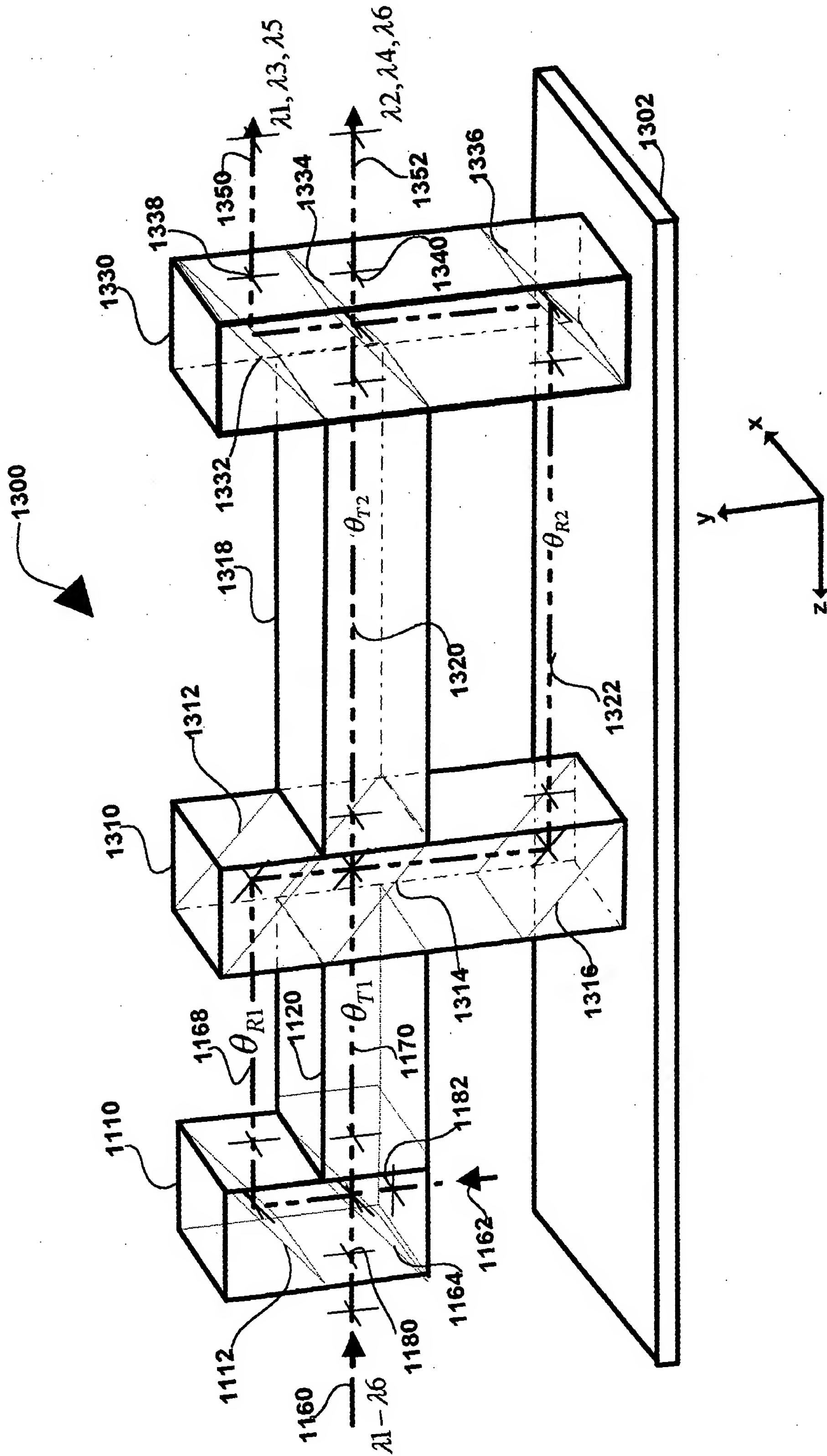


FIG. 10A

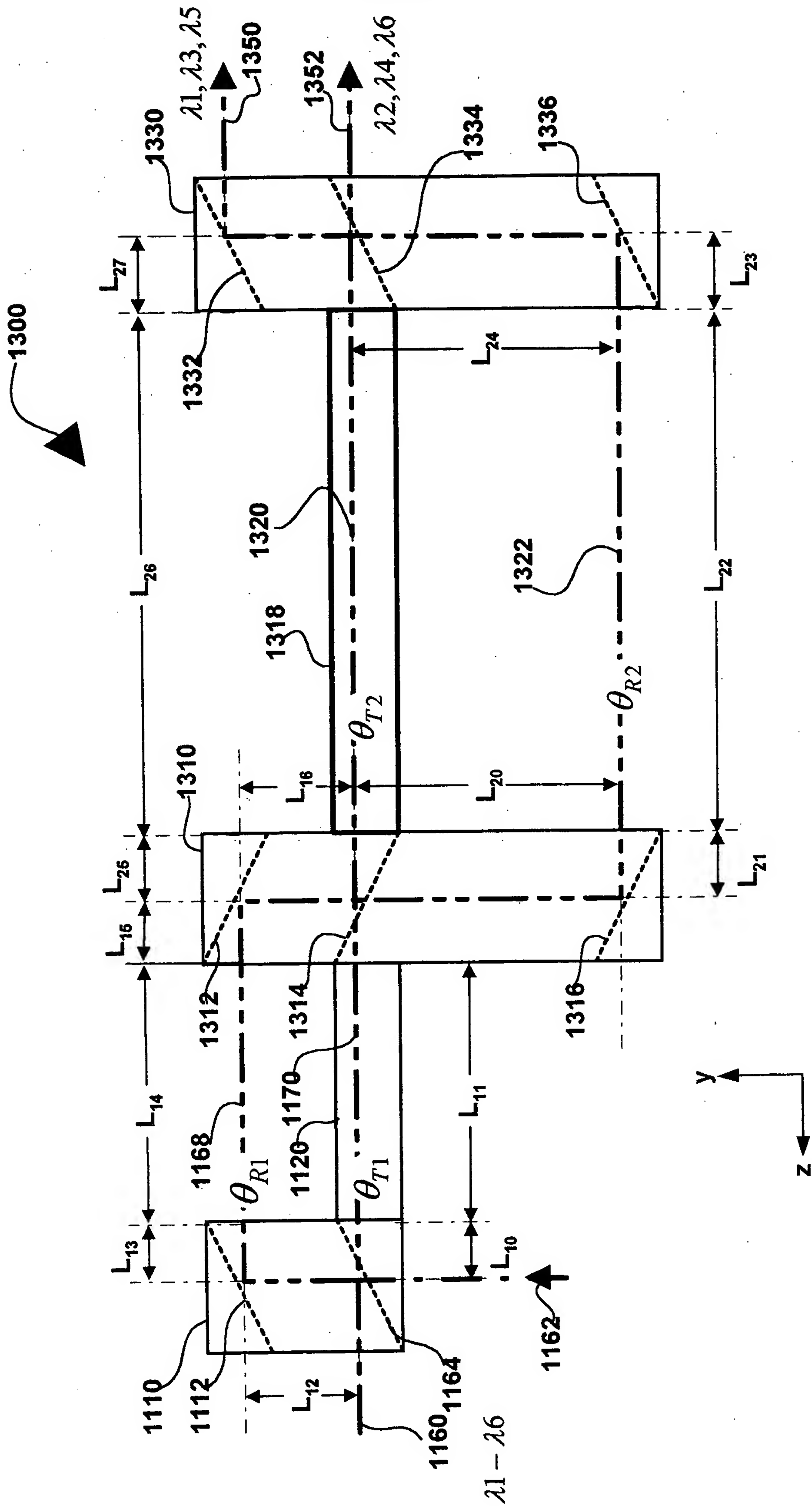
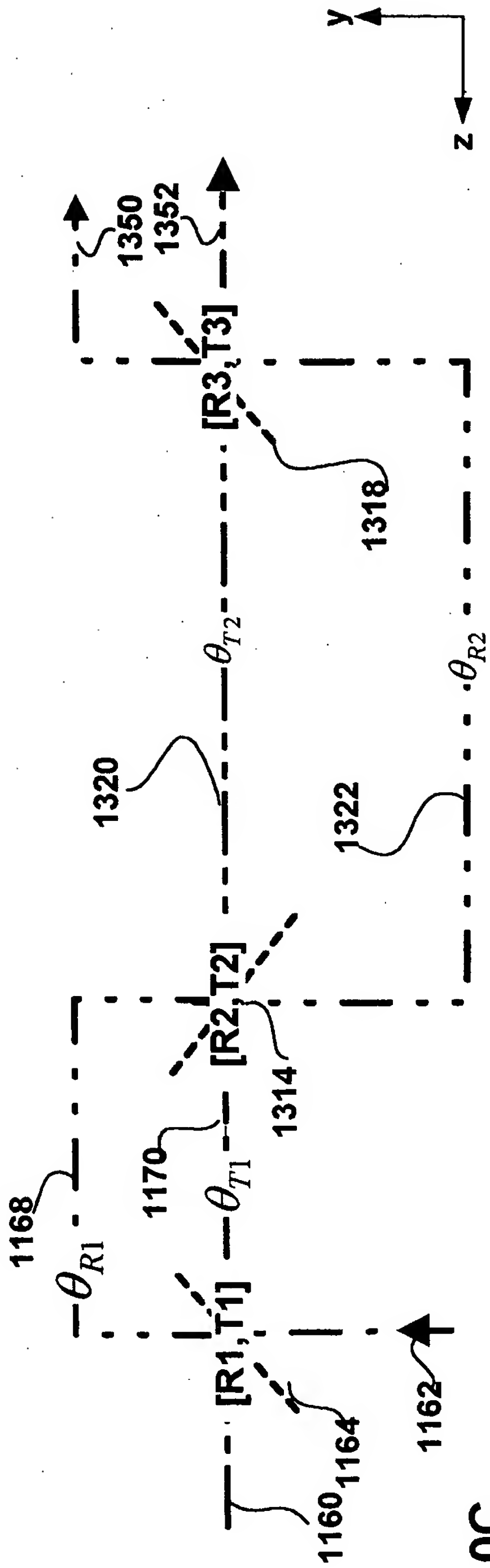


FIG. 10B



$$\begin{aligned}
 \text{Path 1} &= R_1 \cdot T_2 \cdot T_3 \cdot e^{i(\theta_{R1} + \theta_{R2})} \\
 \text{Path 2} &= R_1 \cdot R_2 \cdot R_3 \cdot e^{i(\theta_{R1} + \theta_{T2})} \\
 \text{Path 3} &= T_1 \cdot T_2 \cdot R_3 \cdot e^{i(\theta_{T1} + \theta_{T2})} \\
 \text{Path 4} &= T_1 \cdot R_2 \cdot T_3 \cdot e^{i(\theta_{T1} + \theta_{R2})}
 \end{aligned}$$

1388 1390 1392 1394

1396 1398

FIG. 10D

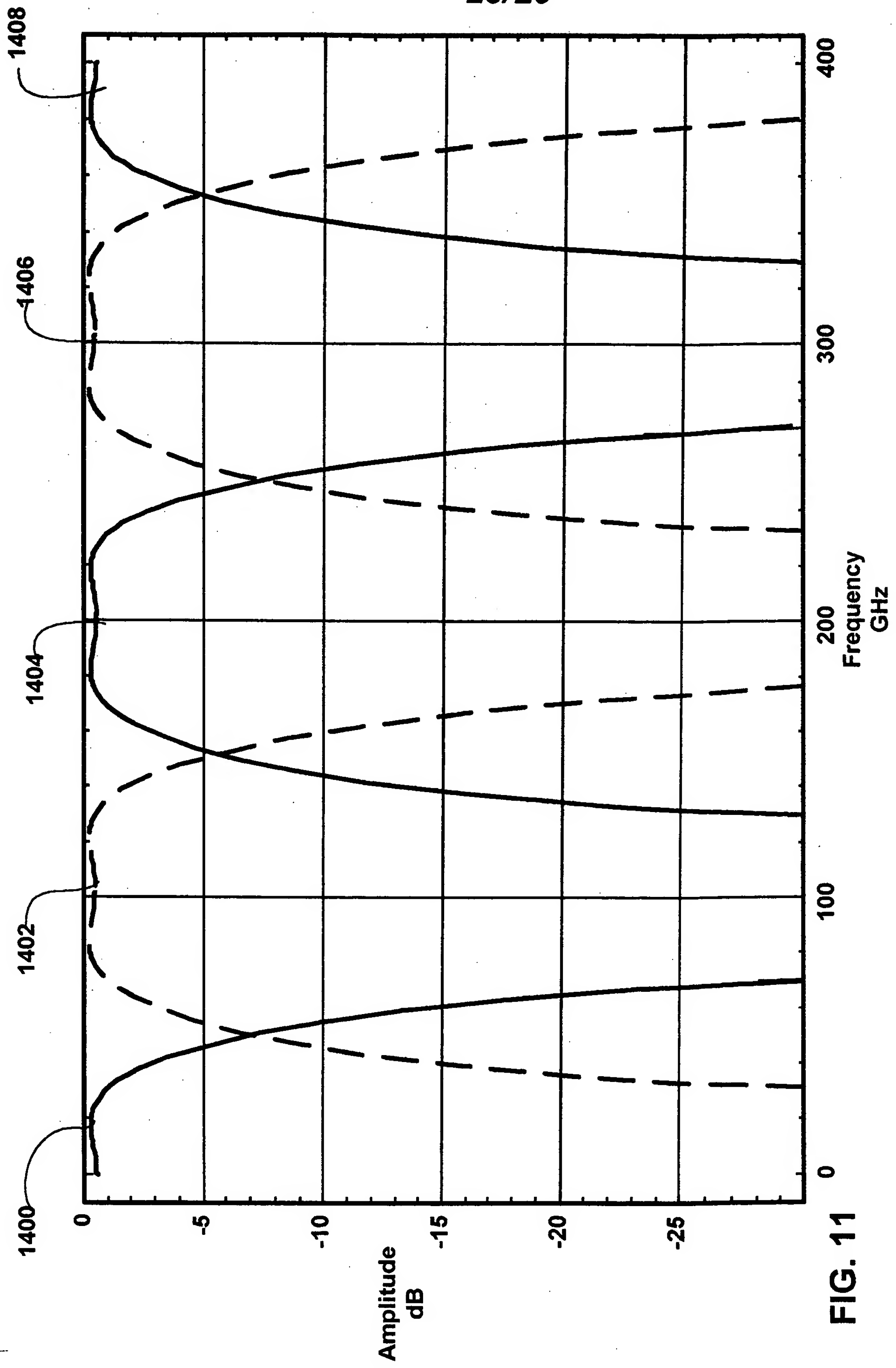


FIG. 11